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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Tian et al.

Application No.: To be assigned

Group Art Unit: To be assigned

Filed: Concurrently Herewith

Examiner: To be assigned

For: HELICOBACTER PROTEINS, GENE SEQUENCES AND USES THEREOF

Attorney Docket No.: 7969-088

TRANSMITTAL OF SEQUENCE LISTING UNDER 37 C.F.R. § 1.821

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

In accordance with 37 C.F.R. § 1.821, Applicants, in connection with the above-identified patent application, submit herewith a Sequence Listing in paper and computer readable form pursuant to 37 C.F.R. §§ 1.821(c) and (e).

I hereby state that the content of the paper and computer readable copies of the Sequence Listing, submitted in accordance with 37 C.F.R. §§ 1.821(c) and (e), respectively, are the same.

Respectfully submitted,

Date: December 7, 2000

Geraldine F. Baldwin 31,232 (Reg. No.)

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Enclosures

SEQUENCE LISTING

<110> Tian, Jing-Hui
Walker, Richard I.
Jackson, W. James

<120> Helicobacter proteins, gene sequences and uses thereof

<130> 7969-088

<140> To Be Assigned
<141> 2000-11-28

<160> 44

<170> PatentIn Ver. 2.1

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Leu	Phe	Ser	Ala	Thr	Met	Pro	Glu	Pro	Ile	Lys	Arg	Leu	Ala	Asp	Lys
210					215					220					
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225				230					235					240	
Asn	Thr	Asp	Ile	Thr	Gln	Arg	Phe	Tyr	Val	Ile	Asn	Glu	His	Glu	Arg
			245					250					255		

Ala Glu Ala Ile Met Arg Leu Leu Asp Thr Gln Ala Pro Lys Lys Ser
260 265 270

Ile Val Phe Thr Arg Thr Lys Lys Glu Ala Asp Glu Leu His Gln Phe
275 280 285

Leu Ala Ser Lys Asn Tyr Lys Ser Thr Ala Leu His Gly Asp Met Asp
290 295 300

Gln Arg Asp Arg Arg Ser Ser Ile Met Ala Phe Lys Lys Asn Asp Ala
305 310 315 320

Asp Val Leu Val Ala Thr Asp Val Ala Ser Arg Gly Leu Asp Ile Ser
325 330 335

Gly Val Ser His Val Phe Asn Tyr His Leu Pro Leu Asn Thr Glu Ser
340 345 350

Tyr Ile His Arg Ile Gly Arg Thr Gly Arg Ala Gly Lys Lys Gly Met
355 360 365

Ala Ile Thr Leu Val Thr Pro Leu Glu Tyr Lys Glu Leu Leu Arg Met
370 375 380

Gln Lys Glu Ile Asp Ser Glu Ile Glu Leu Phe Glu Ile Pro Thr Ile
385 390 395 400

Asn Glu Asn Gln Ile Ile Lys Thr Leu His Asp Ala Lys Val Ser Glu
405 410 415

Gly Ile Ile Ser Leu Tyr Glu Gln Leu Thr Glu Ile Phe Glu Pro Ser
420 425 430

Gln Leu Val Leu Lys Leu Leu Ser Leu Gln Phe Glu Thr Ser Lys Ile
435 440 445

Gly Leu Asn Gln Gln Glu Ile Asp Ala Ile Gln Asn Pro Lys Glu Lys
450 455 460

Thr Pro Lys Pro Ser Asn Lys Lys Thr Pro Gln His Glu Arg Ala Arg
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Tyr Ser Lys Lys Pro Lys Arg Arg
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Leu Asp Leu Phe Glu Val Leu Val Phe Gly Lys Asp Gly Glu Lys Arg
35 40 45

His Asn Glu Lys Leu Thr Ser Ser Ile Glu Tyr Lys Arg His Gly Asp
50 55 60

Asp Tyr Ala Lys Tyr Ala Glu Arg Ile Ala Glu Glu Leu Gln Tyr Tyr
65 70 75 80

Gly Ser Asn Ser Phe Ala Ser Phe Ile Lys Gly Glu Gly Val Leu Tyr
85 90 95

Lys Glu Ile Leu Cys Asp Val Cys Asp Lys Leu Lys Val Asn Tyr Asn
100 105 110

Lys Lys Thr Glu Thr Thr Leu Ile Glu Gln Asn Met Leu Ser Lys Ile
115 120 125

Leu Glu Arg Ser Leu Glu Glu Met Asp Asp Glu Glu Val Lys Glu Met
130 135 140

Cys Asp Glu Leu Ser Ile Lys Asn Thr Asp Asn Leu Asn Arg Gln Ala
145 150 155 160

Leu Ser Ala Ala Thr Leu Thr Leu Phe Lys Met Gly Gly Phe Lys Ser
165 170 175

Tyr Gln Leu Ala Val Ile Val Ala Asn Ala Val Ala Lys Thr Ile Leu
180 185 190

Gly Arg Gly Leu Ser Leu Ala Gly Asn Gln Val Leu Thr Arg Thr Leu
195 200 205

Ser Phe Leu Thr Gly Pro Val Gly Trp Ile Ile Thr Gly Val Trp Thr
210 215 220

Ala Ile Asp Ile Ala Gly Pro Ala Tyr Arg Val Thr Ile Pro Ala Cys
225 230 235 240

Ile Val Val Ala Thr Leu Arg Leu Lys Thr Gln Gln Ala Asn Gly Asp
245 250 255

Lys Lys Ser Leu Gln Ile Glu Ser Ile
260 265